

Appl. No. 09/658,177
Amdt. dated October 15, 2004
Reply to Office Action of July 8, 2004

REMARKS

In view of the following discussion, the Applicant submits that none of the claims now pending in the application are anticipated under the provisions of 35 USC § 102(b) or obvious under the provisions of 35 USC § 103(a). Thus, the Applicant believes that all of these claims are now in allowable form.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, the Examiner should telephone Ms. Janet M. Skafar, Esq. at (650) 988-0655 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Status of Claims

Claims 1-56 are pending in this application.

Rejections under 35 USC § 102

Claims 1, 3-6, 12, 13, 17, 19, 21-25 and 51-54

The Examiner has rejected claims 1, 3, 4, 5, 6, 12, 13, 17, 19, 21-25 and 51-54 under 35 USC § 102(b) as being anticipated by the Hoshi publication (Japanese Patent Application Publication 09-130668 by Hoshi Shusuke). The Applicant respectfully disagrees and traverses this rejection.

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The rejection asserts that the Hoshi publication teaches, in the abstract, circuitry to provide remote slow shutter processing of a video signal from a video source. The rejection asserts that the Hoshi publication teaches, in paragraph [0007], a memory (18) remote from the video source to store a digital representation of a selected video signal, and that the Hoshi patent teaches, in paragraph [0028], signaling means to provide a write control signal that controls whether a portion of the selected video signal is stored in the memory. The Applicant respectfully disagrees.

Claim 1 recites the limitation of "a memory, remote from the video source, to store a digital representation of a selected video signal." As shown in Figures 1 and 2 of the present application, the memory is located remotely from the video source, a camera. In Fig. 1, the memory is incorporated into a matrix switch. Fig. 2 depicts a remote memory unit - separate from a camera, matrix switch, display monitor and recorder.

The Hoshi publication is directed to a video signal processing unit. Drawing 5 is a block diagram showing an example of a conventional record regenerative apparatus. The Hoshi publication states: "[0005] In drawing 5, 10 is a solid state image sensor outputted without interlacing all pixel information in one readout actuation, and is the solid state image sensor (it is hereafter described as CCD) of the method called all pixel

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readouts. 12 is an A/D converter which changes into a digital image pick-up signal the image pick-up signal outputted analogically from the above CCD 10. [0006] 14 is a camera process circuit, processes the output signal of above-mentioned A/D converter 12 for a clamp, a gamma correction, the White clip, a dark clip, etc., and generates a video signal. 16 is a record process circuit and is changed into the digital recording signal for compressing/encoding and recording the inputted digital video signal on a tape. [0007] 18 is memory used for the temporary storage of the data with which it set to the processing performed in the record process circuit 16, and image data was stored temporarily and compressed, and the encoded data. 20 is the record reproducing head."

From the above description, the record regenerative apparatus of drawing 5 and paragraphs [0005]-[0008] is analogous to the video source of claim 1. The image sensor of the Hoshi publication is incorporated to the same record regenerative apparatus as the memory, and is therefore not remote from the image sensor.

Thus, the Applicant submits that the Hoshi publication does not teach a memory, remote from the video source, to store a digital representation of a selected video signal. Therefore, the Applicant submits that the Hoshi publication does not anticipate claim 1.

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Independent claim 1, as it currently stands, contains suitable limitations directed at the distinguishing aspects of the present invention. This claim, with these limitations shown in a bolded typeface, recites as follows:

"Circuitry to provide remote slow shutter processing of a video signal from a video source, comprising:

a memory, remote from the video source, to store a digital representation of a selected video signal; and

signaling means to provide a write control signal that controls whether a portion of the selected video signal is stored in the memory." [emphasis added]

As such, the Applicants submit that independent claim 1 is not anticipated by the teachings in Hoshi publication. Hence independent claim 1 is patentable. Claims 3-6, 12, 13, 17 and 19 depend, either directly or indirectly from claim 1 and are patentable for the same reasons as claim 1. Since independent claim 21 contains similar distinguishing limitations as claim 1, independent claim 21 is also patentable for the same reasons as claim 1. Claims 22-25 depend claim 21 and are patentable for the same reasons as claim 21. Since independent claim 51 contains similar distinguishing limitations as claim 1, independent claim 51 is also patentable for the same reasons as claim 1. Claims 52-55 depend claim 51 and are patentable for the same reasons as claim 51.

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Claim 5

Claim 5 includes the limitations of claim 1 and further recites the limitation of: "wherein the signaling means provides bidirectional control signals, including the write control signal, between the selected video source and the memory."

The rejection asserts that as to claim 5, that the Hoshi publication teaches, in paragraphs [0024]-[0025], that the signaling means provides bi-directional control signals, including the write control signal, between the selected video source and the memory. The Applicant respectfully disagrees.

In the Applicant's patent application, on page 10, line 9 et seq., state: "Bidirectional signals between the digital video memory and the cameras inform the cameras of the presence of the digital video memory, and whether the contents of the digital video memory should be updated."

Paragraphs [0024]-[0025] of the Hoshi publication state:

"[0024] [Embodiment of the Invention]
Hereafter, 1 operation gestalt of the video-signal processor of this invention is explained with reference to a drawing. Drawing 1 is the functional block diagram showing the important section configuration of the video-signal processor of this invention. drawing 1 - setting - A - an image pick-up means and B - a camera signal-processing means and C - for a video-

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signal selection means and F, a display means and G are [a record signal-processing means and D / memory and E / an inhibiting-signal output means and J of a mode-of-operation setting means and H] record media.

[0025] The image pick-up means A carries out photo electric conversion of the light from a photographic subject, and generates an image pick-up signal, and all the pixel image sensors that output the signal of each pixel by un-adding are used. The camera signal-processing means B performs predetermined processing to the image pick-up signal outputted from the above-mentioned image pick-up means A, and generates the video signal of a predetermined TV signal format."

Unlike the claimed invention, paragraphs [0024]-[0025] of the Hoshi publication do not teach bidirectional signals between the memory and the selected video source. In paragraph [0028], the Hoshi publication teaches that the inhibiting-signal output means H is established as a control means controlled to make the compression coding processing perform at the period when the output signal of the image pick-up means A is not written in the memory D, when slow shutter mode is set up by the mode-of-operation setting means G. Paragraph [0032] of the Hoshi publication teaches in conjunction with Figure 1 an inhibiting signal Sc, provided to the record signal processing means C, which is output if slow shutter mode is set up by the mode-of-operation setting means G. Assuming that the image pick-up means A is analogous to the video source of the claimed invention, the inhibiting signal is not provided directly to the memory D but to another element, the record signal

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processing means C. Furthermore, the inhibiting signal is not provided by the image pick-up means A. Furthermore, unlike the claimed invention, the memory does not provide a signal to the image pick-up means A.

Therefore the Applicant submits that claim 5 is also patentable for the foregoing reasons. Claims 6 and 12 depend, either directly or indirectly, from claim 5 and are also patentable for the same reasons as claim 5.

Rejections under 35 USC § 103

Claims 2, 14, 15, 32-34, 39, 42-44 and 48-50

Claims 2, 14, 15, 32-34, 39, 42-44 and 48-50 are rejected under 35 USC § 103(a) as being unpatentable over the Hoshi publication in view of the Nisikawa patent (U.S. Patent No. 5,821,995, granted to Hiroyuki Nisikawa on Oct. 13, 1998). The Applicant respectfully disagrees and traverses the rejection.

The rejection asserts that in regards to claim 2, the Hoshi publication teaches the claimed invention as discussed in claim 1. The Applicant respectfully disagrees for the reasons set forth above with respect to claim 1.

The rejection indicates that the Hoshi publication only teaches that one image sensor is connected to the image processing system and does not teach the use of a selector to select one of a plurality of video sources

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as the selected video source. The rejection then asserts that the Nisikawa patent teaches, in column 6, lines 19-25, and column 7, lines 52-55, and depicts in Figure 4 that it is advantageous to design an imaging system to be able to transmit multiplexed video signals so that a remote user can view a plurality of video signals. The rejection then contends that it would have been obvious to one of ordinary skill in the art at the time the invention was made to enable the camera system of the Hoshi publication to receive a multiplexed video signal having a plurality of video signals from a plurality of cameras as taught by the Nisikawa patent in order to enable a user to view a plurality of video signals from several cameras over a single transmission path.

The Applicant respectfully disagrees. Claim 2 depends from claim 1 and the rejection will also be discussed with reference to claim 1.

The Applicant maintains that the combination of the Hoshi publication and the Nisikawa patent, explicitly or implicitly, does not teach or suggest the claimed invention. The Hoshi patent teaches a memory within a video signal processing unit. The Nisikawa patent is directed to a method and apparatus for controlling transmission of multiplexed video signals.

Combining the teachings of the Hoshi publication and the Nisikawa patent does not result in the claimed invention. The video signal processing unit of the Hoshi

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publication is analogous to the camera system of Figure 4 of the Nisikawa patent. Therefore, combining the teachings of the Hoshi publication and the Nisikawa patent results in multiple video signal processing units coupled to the switcher. The combination of the Hoshi publication and the Nisikawa patent does not result in a memory that is remote from the video source, that is, the camera system, and does not result in a selector to select one of a plurality of video sources as the selected video source to provide the selected video signal which is stored in a memory.

Therefore, the Applicant submits that claims 1 and 2 are not obvious and patentable. Claims 14 and 15 depend from claim 2 and are non-obvious for the same reasons as claim 2.

Since independent claim 32 contains similar distinguishing limitations as claim 2, independent claim 32 is patentable for the same reasons as claim 2. Claims 33-34 and 39 depend, directly or indirectly, from claim 32 and are patentable for the same reasons as claim 32.

Since independent claim 42 contains similar distinguishing limitations as claim 2, independent claim 42 is patentable for the same reasons as claim 2. Claims 43-44 and 48-50 depend, directly or indirectly, from claim 42 and are patentable for the same reasons as claim 42.

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Claims 8, 26-29 and 55

Claims 8, 26-29 and 55 were rejected under 35 USC § 103(a) as being unpatentable over the Hoshi publication in view of the Briand et al patent (U.S. Patent No. 4,191,969, granted to Marcel E. Briand on March 4, 1980). The Applicant respectfully disagrees and traverses the rejection.

The rejection asserts that in regards to claim 8, the Hoshi publication teaches the claimed invention as discussed in claim 1. The Applicant respectfully disagrees and has already discussed the Hoshi publication with respect to claim 1.

The rejection asserts that the Hoshi publication teaches the use of an enable slow shutter signal and a video signal. The rejection indicates that the Hoshi publication does not teach that the control signal can be superimposed on the selected video signal. The rejection then asserts that the Briand et al patent teaches in column 2, lines 19-26, column 2, lines 65-68 and column 5, lines 23-25, and column 4, lines 46-51, a method for encoding data such as signaling channels into the blanking and synchronization signals of a video signal. The Briand et al patent teaches that this method of transmitting data channels superimposed on the video signal within the blanking and synchronization signals is advantageous because it allows for faster transmission over a single communications channel. The rejection then asserts that it

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would have been obvious to one of ordinary skill in the art at the time the invention was made to superimpose the control signals of the Hoshi publication into the video signal by encoding the signaling channels into the blanking and synchronization signals of the video signal as taught by the Briand et al patent in order to allow for faster transmission over a single communications channel. The Applicant respectfully disagrees.

The present invention provides a slow shutter capability in a video system at a reduced cost. The present invention eliminates the need to provide a memory in each camera in a video system to provide slow shutter video processing of video signals.

The Hoshi publication and the Briand et al patent are directed to completely different problems from the claimed invention. In contrast to the claimed invention, the Hoshi publication is directed to a video signal processing unit and solves the problem of supplying image data to a display device continuously.

In contrast to the present invention, the Briand et al patent is directed to a video composite transmission system integrating encoded data channels into a blanking and synchronizing signal. In column 2, lines 33 et seq., the Briand et al patent states that the "main object of the present invention is to provide a video composite transmission system of analog voice and synchronizing signals mixed with suitably-coded digital data channels,

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other than sound signals, in which multiplexed data channels are transmitted and mixed with the preceding analog signals without reducing the video signal transmitted integrally in analog waveform, the pulses of the synchronizing signals being shortened without the synchronization being thereby lost at the receiving end." The Briand et al patent also states that a "further object of this invention is to provide a composite transmission system in which digital data channels are integrated in the trace intervals of the black lines which are available and allocated to field blanking or vertical blanking." The Briand et al patent further states that "a further object of this invention is to provide a composite transmission system in which all the digital data channels are transmitted in the form of a 2^M level code, and the synchronizing pulses are shortened but transmitted in analog waveform so as to easily detect the horizontal and vertical scanning synchronization at the reception end without it being necessary to have recourse to complex transcoding equipments."

Therefore, one of ordinary skill in the art would not look to the Hoshi publication or the Briand et al patent to solve the problem addressed by the claimed invention to provide slow shutter capability in a video system at a reduced cost.

Furthermore, the combination of the Hoshi publication and the Briand et al patent would not eliminate the need to provide a memory in each camera in a video

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system to provide slow shutter video processing of video signals. Neither the Hoshi publication nor the Briand et al patent provides a teaching of a memory, remote from the video source, to store a representation of a selected video signal.

Furthermore, the Briand et al patent does not disclose a write control signal that controls whether a portion of the selected video signal is stored in memory, that is superimposed on the video signal, of claim 8. In contrast, The Briand et al patent generally discloses, in column 2, lines 18-30, in the case of a video telephone transmission system, a necessity to transmit additional digital data channels other than those usually transmitted, viz sound signals, and provides, as an example, signaling channels at a rate of 64 kbits/s. Unlike the Briand et al patent, the present invention is not directed to video telephone transmission system. Moreover, significantly, the Briand et al patent does not disclose a write control signal that controls whether a portion of the selected video signal is stored in memory, that is superimposed on the video signal, as in the claimed invention.

Therefore, the Applicant submits that claim 8 is not obvious and is patentable.

Claims 26-29 and 55 contain similar distinguishing limitations as claim 8 and are patentable for the same reasons as claim 8.

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Claims 7 and 30

The Examiner has rejected claims 7 and 30 under 35 USC § 103(a) as being obvious over the Hoshi publication. The Applicant respectfully disagrees, and this rejection is respectfully traversed. Since claim 7 depends from claim 1, the rejection will be discussed with respect to claim 1.

The rejection asserts that Official notice is taken that it was well known in the art at the time the invention was made to provide camera control signals on separate control lines than the video signal to simplify the design. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the write control signal separate from the video signal to simplify the design of the camera system.

The present invention provides a slow shutter capability in a video system at a reduced cost. The present invention eliminates the need to provide a memory in each camera in a video system to provide slow shutter video processing of video signals. In contrast, the Hoshi publication is directed to solving the problem of supplying image data to a display device continuously. Even if it was well known to provide camera control signals on separate control lines than the video signal, the Hoshi publication is directed to such a different problem from the claimed invention that one skilled in the art would not look to the Hoshi publication to solve the problem of the

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claimed invention of providing a slow shutter capability at a reduced cost.

Therefore, the Applicant submits that claims 1 and 7 are non-obvious and patentable.

Claim 30 contains similar distinguishing limitations as claim 7 and is patentable for the same reasons as claim 7.

Claims 35-38, 45-47 and 56

Claims 35-38, 45-47 and 56 were rejected under 35 USC § 103 (a) as being unpatentable over the Hoshi publication in view of the Nisikawa patent, and further in view of the Briand et al patent. The Applicant respectfully disagrees and traverses this rejection.

The Hoshi publication, the Nisikawa patent and the Briand et al patent are directed to completely different problems from the claimed invention. In contrast to the claimed invention, the Hoshi publication is directed to a video signal processing unit and solves the problem of supplying image data to a display device continuously.

In contrast to the claimed invention, the Nisikawa patent is directed to a method and apparatus for controlling transmission of multiplexed video signals.

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In contrast to the present invention, the Briand et al patent is directed to a video composite transmission system integrating encoded data channels into a blanking and synchronizing signal. In column 2, lines 33 et seq. states that the "main object of the present invention is to provide a video composite transmission system of analog voice and synchronizing signals mixed with suitably-coded digital data channels, other than sound signals, in which multiplexed data channels are transmitted and mixed with the preceding analog signals without reducing the video signal transmitted integrally in analog waveform, the pulses of the synchronizing signals being shortened without the synchronization being thereby lost at the receiving end." The Briand et al patent also states that a "further object of this invention is to provide a composite transmission system in which digital data channels are integrated in the trace intervals of the black lines which are available and allocated to field blanking or vertical blanking." The Briand et al patent further states that "a further object of this invention is to provide a composite transmission system in which all the digital data channels are transmitted in the form of a 2^M level code, and the synchronizing pulses are shortened but transmitted in analog waveform so as to easily detect the horizontal and vertical scanning synchronization at the reception end without it being necessary to have recourse to complex transcoding equipments."

Therefore, one of ordinary skill in the art would not look to the Hoshi publication, the Nisikawa patent or

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the Briand et al patent to solve the problem addressed by the claimed invention to provide slow shutter capability in a video system at a reduced cost.

As discussed above, the combination of the Hoshi publication and the Nisikawa patent does not result in the claimed invention. Adding the teaching of the Briand et al patent, integrating encoded data channels into a blanking and synchronizing signal, still would not result in the claimed invention.

Furthermore, the combination of the Hoshi publication, the Nisikawa patent and the Briand et al patent would not eliminate providing a memory in each camera in a video system to provide slow shutter video processing of video signals. Neither the Hoshi publication, the Nisikawa patent nor the Briand et al patent teach a memory, remote from the video source, to store a representation of a selected video signal.

Therefore, the Applicant submits that claim 35 is not obvious and patentable. Since claims 35-38, 45-47 and 56 contain similar distinguishing limitations as claim 35, claims 35-38, 45-47 and 56 are not obvious for the same reasons as claim 36.

Conclusion

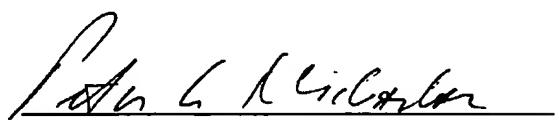
Consequently, the Applicants believe that all these claims are presently in condition for allowance.

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Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

Respectfully submitted,

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Peter L. Michaelson, Attorney
Reg. No. 30,090
Customer No. 007265
(732) 530-6671

MICHAELSON & ASSOCIATES
Counselors at Law
Parkway 109 Office Center
328 Newman Springs Road
P.O. Box 8489
Red Bank, New Jersey 07701

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